

REMARKS

I. Status of the Claims

Claims 1-26 are pending in the application.

II. Applicants' Invention

Applicants' claim 1 claims an integrated process for producing hollow plastic articles. The process comprises: a) producing a tubular plastic parison, b) cutting the parison into two planar surface parts, c) molding the two parts to give two half shells which are separated by a removable intermediate frame, d) opening the mold and removing the intermediate frame, e) closing the mold halves, and f) bonding the half shells.

Applicants respectfully draw the Examiner's attention to the following two elements which are missing from the cited references: the use of a removable intermediate frame and bonding the half shells on the mold halves.

First, the removable intermediate frame not only serves to separate the tubular plastic parison into two planar surface parts and keep the two semi-finished half shells from contacting each other, but more importantly, it can also be removed after the two half shells are formed so that the incorporated parts such as fuel lines, valves, cups and sensors can be easily installed on the half shells. Without the removable intermediate frame, the half shells must be taken out of the mold halves to install the incorporated parts.

Second, unlike the prior art processes, the process of the invention integrates the bonding of the two half shells as in a continued operation. That is, after the removal of the intermediate frame and the installation of the incorporated parts, the two mold halves are closed and the two finished half shells are then bonded. This integrated process of the invention operates more efficiently and produces more reliable products than the conventional

processes known in the art which operate the bonding of two finished half shells separately from producing the semi-finished half shells and installing the incorporated parts onto the half shells.

III. Examiner's Rejections

The Examiner has given the following rejections:

(a) The Examiner rejects claims 1-9, 12-19, and 23-26 under 35 U.C.S. §103 (a) over Sadr (U.S. Pat. Appl. Publication 2002/0105115) in view of Schaftingen et al. (U.S. Patent Appl. Publication 2001/0015513).

(b) The Examiner rejects claims 1-9, 12-19 and 23-26 under 35 U.C.S. §103 (a) over Sadr in view of Rohde et al. (U.S. Patent 6,893,603).

(c) The Examiner rejects claims 9, 10, 11 and 22 under 35 U.C.S. §103 (a) over Sadr in view of Schaftingen et al. or Rohde et al., and further in view of Shuman (U.S. Patent 4,170,449).

(d) The Examiner rejects, under the doctrine of obviousness double patenting, claims 1-9, 12, 13, 15-18, 24 and 25 over claims 1-18 of Rohde et al. in view of Sadr, claims 10, 11, and 22 over claims 1-18 of Rohde et al. in view of Sadr in view of Sadr and Shuman, and claims 19, 23, and 26 over claims 1-18 of Rohde et al. in view of Sadr in view of Sadr and Schaftingen.

IV. Applicants' Response to Rejections

(a) Obviousness rejection of Claims 1-9, 12-19 and 23-26 over Sadr in view of Schaftingen et al.

MPEP §2142 provides: To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a

reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As discussed above, Applicants' invention is an integrated process for producing hollow plastic articles. The process comprises: a) producing a tubular plastic parison, b) cutting the parison into two planar surface parts, c) molding the two parts to give two half shells which are separated by a removable intermediate frame, d) opening the mold and removing the intermediate frame, e) closing the mold halves, and f) bonding the half shells.

In Applicants' invention, the removable intermediate frame not only serves to separate the tubular plastic parison into two planar surface parts and keep the two semi-finished half shells from contacting each other, but more importantly, it can also be removed after the two half shells are formed so that the incorporated parts such as fuel lines, valves, cups and sensors can be easily installed on the half shells. Without the removable intermediate frame, the half shells must be taken out of the mold halves to install the incorporated parts.

Applicants do not dispute with the Examiner that Sadr discloses a process for making hollow plastic articles such as fuel tanks. In the Sadr process, a mold separator is aligned with the parison so that the mold separator is placed in the slit portions of the parison. The mold portions are then closed over the slit parison and the parison separator to form a plurality of separate molding cavities. The parison is then molded so as to conform to the cavities in the mold portions thereby simultaneously forming a plurality of molded parts from a single parison. See Sadr, paragraph [0009].

Unlike Applicants' invention, Sadr does not teach an integrated process which comprises the use of a removable intermediate frame. In Applicants' invention, the removable intermediate frame not only serves to separate the tubular plastic parison into two planar surface parts and keep the two semi-finished half shells from contacting each other, but more importantly, it can also be removed after the two half shells are formed so that the incorporated parts such as fuel lines, valves, cups and sensors can be easily installed on the half shells. Without the removable intermediate frame, the half shells must be taken out of the mold halves to install the incorporated parts.

As the Examiner correctly points out, Schaftingen et al. also teaches a process for producing fuel tanks. However, Schaftingen et al., like Sadr, does not teach Applicants' integrated process. More particularly, neither Sadr nor Schaftingen et al. teaches or suggests the use of a removable intermediate frame. Thus, the combined teachings of Sadr and Schaftingen et al. cannot make Applicants' invention obvious because to make Applicants' invention obvious, the prior art references must teach or suggest all the claim limitations.

Furthermore, unlike the prior art processes of Sadr and Schaftingen et al., the process of the invention integrates the bonding of the two half shells into a continued operation. That is, after the removal of the intermediate frame and the installation of the incorporated parts, the two mold halves are closed and the two finished half shells are then bonded. This integrated process of the invention operates more efficiently and produces more reliable products than either Sadr, or Schaftingen et al., or the combined teachings of Sadr and Schaftingen et al. Both Sadr and Schaftingen et al. operate the bonding of two finished half shells separately from producing the semi-finished half shells and installing the incorporated parts onto the half shells. Neither Sadr nor Schaftingen et al. teaches or suggests modifying their processes to come out with Applicants' invention. Thus, the combined

teachings of Sadr and Schaftingen et al. cannot make Applicants' invention obvious.

(b) Obviousness rejection of claims 1-9, 12-19 and 23-26 under 35 U.C.S. over Sadr in view of Rohde et al.

Please note that Rohde et al. and this application are owned by the same company and that Rohde et al. can only be used as prior art under 35 U.S.C. §102(e). Thus, Rohde et al. is disqualified as prior art under 35 U.S.C. §103 (c) against any of the claims of this application. Applicants, therefore, respectfully request that the Examiner withdraw the obviousness rejections of claims 1-9, 12-19 and 23-26 over Sadr in view of Rohde et al.

(b) Traverse obviousness rejections of Claims 9, 10, 11 and 22 over Sadr and Schaftingen et al. in view of Shuman

Claims 9, 10, 11 and 22 depend, directly or through intervening claims, from claim 1. As discussed above, Sadr and Schaftingen et al. cannot make claim 1 obvious because the combined references fail to teach or suggest an integrated process of claim 1. More particularly, neither Sadr nor Schaftingen et al. teaches or suggests using a removable intermediate frame to cut the parison into two planar surface parts and to separate the two molded half shells; neither Sadr nor Schaftingen et al. teaches or suggests removing the intermediate frame to install the incorporated parts onto the half shells; neither Sadr nor Schaftingen et al. teaches or suggests bonding the half shells as an integrated step of the process. Note that Shuman provides no remedy to these defects of Sadr and Schaftingen et al. Thus, the combination of Sadr, Schaftingen et al., and Shuman cannot make claim 1 obvious, and thus it cannot make claims 9, 10, 11, and 22 obvious because they depend from claim 1.

(d) Obviousness double-patenting rejections

Applicants file with this response a terminal disclaimer which permits claims 1-13, 15-19, and 22-26 to expire at the same time claims 1-18 of Rohde et al. expire. Applicants thus request that the Examiner withdraw the obviousness double patenting rejections of those claims.

In view of the above remarks, Applicants believe that claims 1-26 are patentable in view of any cited references or their combinations and thus respectfully request the rejection of claims 1-26 be withdrawn.

Respectfully submitted,
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